

Abstract

The present invention relates to a semiconductor device in which a semiconductor element and a substrate are disposed face-to-face, the mixture of the thermoplastic resin and the thermosetting resin is provided between the semiconductor element having the electrode formed thereon and the substrate having the wiring pattern formed thereon, the mixture holding in contact the electrode of the semiconductor element and the wiring pattern of the substrate. The semiconductor device of the present invention is obtained by: providing a sealing resin, which is a mixture of a thermoplastic resin and a thermosetting resin, between the semiconductor element and the substrate; heating at a temperature greater than a melting temperature of the thermoplastic resin; applying pressure to the sealing resin so that it spreads through the space between the semiconductor element and the substrate; melt-bonding the semiconductor element and the substrate through a cooling contraction of the thermoplastic resin component; and heating at a temperature less than a melt bond temperature of the thermoplastic resin component to cure the thermosetting resin component.